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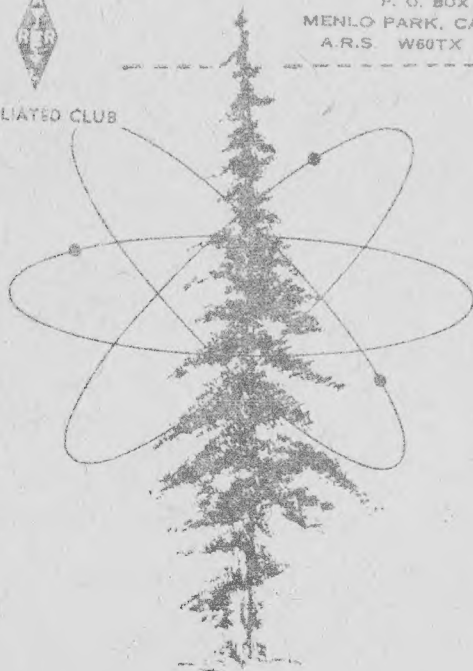
PALO ALTO AMATEUR RADIO ASSOCIATION, INC.



P. O. BOX 911  
MENLO PARK, CALIF. 94025  
A.R.S. W60TX U.S.A.

STATION W60TX

AFFILIATED CLUB



AFFILIATED CLUB

MENLO PARK  
CIVIL DEFENSE  
RADIO CLUB

CITY OF  
MENLO  
PARK

K6YQT

Vol.  
XVI  
1972

Dec, 72

## OFFICERS

### ADMINISTRATIVE

### BOARD OF DIRECTORS

President: Fred Canham, W6QWF  
 Vice Pres: Andy Korask, VE3FZK  
 Treasurer: Vance Wardlow, W6FLE  
 Secretary: Les Vickery, W6AKR

Chairman: Fred Canham W6QWF  
 Sect'y : Les Vickery W6AKR  
 Member : Hal Moore W6DEF  
 Member : Ed Fairbanks W6AIN  
 Member : Gerry Laxson W6OPA  
 Member : Bob Allen W6WQD  
 Member : Andy Korsak VE3FZK  
 Member : V. Wardlow W6FLE

#### APPOINTMENTS

Chmn TVI Comm: Glen Baker W6UOK  
 Eqpt Cust'dn : Ed Fairbanks  
 CCRC Represnt: Fred Canham

#### Refreshment & Raffle Comm

Ed Fairbanks W6AIN  
 Lee Zalaznik WB6BJB

#### Telephone Comm

Larry Rice W6IQT  
 Andy Korsak VE3FZK  
 Les Vickery W6AKR

### MENLO PARK C-D RADIO CLUB

Pres: Fred Canham W6QWF; Vice Pres: Glen Baker W6UOK  
 Secty/Treas: Vance Wardlow W6FLE  
 Property Custodian: Bob Allen W6WQD (Trustee K6YQT)  
 Asst " " : Glen Baker W6UOK

RACES RADIO OFFICER: Bob Allen W6WQD

Managing Editor: Lee Zalaznik WB6BJB

Assistant Editors: Andy Korsak VE3FZK; Ed Fairbanks  
 W6AIN; Les Vickery W6AKR; Gene Sussli WA6NVU (San  
 Carlos Bugle); Eric Reese WB6KQX; Tom Ohlsson WB6KQZ.

POLICY: Membership includes subscription to PAARAGRAPHS.  
 Annual dues \$4.00. Non-Subscribers will be dropped from  
 mailing list as new names are added. Subscription \$1.00.  
 For your APPLICATION FOR MEMBERSHIP send \$4.00 to PAARA,  
 P.O. Box 911, Menlo Park, Ca. 94025. For info call 854 0803

### BECOME A PARTICIPATOR

GET INVOLVED

PAY YOUR DUES

DO SOMETHING

support your club

SUPPORT YOUR CLUB

support your club

(See page 3 for future programs)

COMING EVENTS

MEETING NOTICE

Friday December 1st TIME: 7:30pm. PLACE: Menlo Park Recreation Center. PROGRAM:: Jim Lomasney will talk on "HF Back Scatter Research", Jim will describe the purpose, methods and results of this research at Stanford University and SRI. Motion pictures will illustrate the talk.

BOARD OF DIRECTORS MEETING

Wednesday, December 6th TIME: 7:30pm PLACE: The PARA trailer at SRI in Menlo Park, Ca.

CHRISTMAS PARTY

Friday, December 15th PLACE: Sir George's For more information see the paper flier. FOR MEMBERS AND GUESTS; BRING THE FAMILY

OSCAR 6

The lucky launch of OSCAR 6 took place on October 15 at 1719 GMT from Vandenberg Air Force Base. The 40 pound package went up piggy-back aboard the ITOS-D weather picture satellite into a polar orbit over 900 miles high. This is known as a "sun synchronous orbit", that is to say if you hear it 15 minutes before sunset today it will be the same 15 minutes before sunset tomorrow.

CURRENT EVENTS

December 1972

Regular meeting November 3, 1972

By Les Vickery

The meeting was held at the Menlo Park Recreation Center, with President Fred Canham, W6WF, presiding. The meeting began with election of officers for 1973.

Additional nomination those presented by the Nominating Committee were opened for each office. There were no new nominations from the floor, therefore motions were made, seconded, and approved that each office be closed for further nominations. Hal Moore moved that the nominees be declared unanimously elected. The motion was seconded and approved.

Offices for the Menlo Park Civil Defense Club were opened for additional nominations. There were no new nominations added to those presented by the nominating committee. It was moved, seconded, and approved that the Menlo Park C. D. officers be declared unanimously elected.

Fred Canham thanked everyone for attending and supporting the PAARA auction on October 13th. The financial returns to the club were better than last year.

Andy Korsak gave technical committee reports on current TV and 2-meter projects.

Plans for the Christams party were discussed. A suggestion by Gene Sussli that the party be held at Sir George's this year was adopted after much discussion and consideration. Gene offered to act as committee chairman.

The program was given by Mr. Al L. Clark, founder of Interstate Electronics. He discussed the design features of the Mini-Mitter and its capabilities for communications on 80 & 40 meters; and its use in Alaska by surey teams and oil companies.

REPORT OF NOMINATING COMMITTEE

The following slate of officers and committee members were elected on November 3, 1972:

PALO ALTO AMATEUR RADIO ASSOCIATION

President: Fred Canham, W6QWF  
Vice President: Bob Baum, W6BFH  
Secretary: Gene Reynolds, K6LOM  
Treasurer: Vance Wardlow, W6FLE

Board of Directors

Hal Moore, W6DEF  
Ed Fairbanks, W6AIN  
Andy Korsak, VE3FK  
Vance Wardlow, W6FLE  
Paul Thekan, WN6DQU  
Tom Ohlsson, WB6KQ

Special Assignments

Equipment Custodian  
Ed Fairbanks, W6AIN

CCRC Representative

Fred Canham, W6QWF

Menlo Park C-D radio club

President: Fred Canham, W6QWF  
Vice President: Eric Reese, WB6KQX  
Secretary/Treasure: Vance Wardlow, W6FLE  
Property Custodian: Bob Allen, W6WQD (Trustee K6YQT)  
Asst. Property Custodian: Steve Montoya, WN6DOT

Committees

TVI- Glen Baker, W6UOK

Refreshments & Raffle

Ed Fairbanks, W6AIN  
Lee Malaznik, WB6BJB

Technical Projects

Andy Korsak, VE3FK  
Bjorn Fosberg, SM5UR/W6  
Eric Reese, WB6KQX  
John Cameron, (NC)

Telephone

Larry Rice, W6IOT  
Andy Korsak, VE3FK  
Les Vickery, W6ARK



# CODE PRACTICE SKEDS

The code practice from W6QIE has been running several years, and is a continuation of the K6USN code practice back in the 1960's at the present only one frequency (3590) is keyed, but plans and equipment is rapidly shaping up to add more. The first will be 7129 KHz. All frequencies used are coordinated with W6 RJ's code practice, ARRL bulletins, and W6OWP's ARRL qualifying runs. TIME: 8:00-9:00 PM daily except Mondays. FREQUENCY: 3590 KHz.

SPEEDS: 8:00-8:05 call tape  
8:05-8:20 5 WPM  
8:20-8:30 8 WPM  
8:30-8:40 11 WPM  
8:40-8:50 14 WPM  
8:50-9:00 17 WPM  
9:00-9:10 20 WPM  
9:10-9:20 25 WPM  
9:20-9:30 30 WPM

PARRA Code Class  
Thursdays  
7 PM  
Menlo Park Rec. Cent  
Call Paul- 369 4034  
(from CCRC Circle)

## RTTY REPEATER

A new FM repeater serving the Bay Area RTTY stations has just been announced, according to Tom Nelson, W6QGN. Using 2125 mark/2975 space tones at 60 wpm, it has an input of 147.93 MHz and an output of 147.33 MHz.

The new repeater is a joint effort of WA6EU and WB6IMP and will temporarily operate under the latter's call. It will be an open repeater and all amateurs are invited to participate. Although presently installed as a COR (carrier) access direct audio device, future modifications will provide signal regeneration, automatic date/time entries, and other special features. (from CCRC Circle)

## NOVICE PRIVILEGES TO TECHS-MAYBE?

It is interesting to note that W8VR has petitioned the Commission to grant Novice privileges to Technicians, duplicating a number of others already on file. The reference is RM-2043. (from CCRC)

CCMAE

Uscar has been shut down due to excessive battery drain by use of high powered transmitters on input. Will be turned on again November 17th 0000 GMT.

-----

A man couldn't tell his two horses apart. He tried cutting the tail off one and the mane off the other-but this didn't work because soon grey back. Then he had a blinding inspiration! He measured them the black horse was two inches taller then the white one.  
( from The MODULATOR)

CRU

Most of the C signals have an affirmative answer when used with a question mark. But the answer to CRU? is negative. Among traffic operators especially, we've heard this one murdered many times. CRU? does not mean "Are you clear of traffic?" and the affirmative reply does not mean " I am clear of traffic". It means "Do you have any messages for me ?" and the answer means "I have no messages for you." So if someone gives you CRU? and you answer affirmative (not R!), he might tell you to g.a. with your traffic. Usually, however, both parties use the signal incorrectly. We're about to turn grey from hearing NCS's say CRU?, answered C by the net station, where upon the NCS says NX.  
( from October '72 QST)

OPERATION NOVICE ASSIST

A request has been made on behalf of the Bay Area novices to have hams give crystals they are no longer using, and which can be used by novices, to a group which is organizing a crystal bank. Crystals will be made available to new novices to enable them to operate on more of the allowable frequencies. Crystals should be mailed to Ron Jones  
N6PWT: Box 2012, San Mateo, Ca. 94401 ( from CCRC Circle)

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*Merry Christmas and a Happy New Year*





FOR SALE

Portable 900 Watt A.C. Alternator, gas driven, commercial, like new  
115 V. A.C. at 60 cycles. Good for campers or ham operators in field.  
\$100.00 or offer.

Smith-Corona portable typewriter like new and excellent condition  
\$35.00 or offer.

RCA Victor 3 speaker stereo recorder player, all speeds, portable, in  
excellent condition \$30.00 or offer.

To 150V @ 10 amps. A.C. Volt-Amp Meter \$7.00 or offer

Farmer Electric Scanner(Electirc eye) to Relay Model PE#3 new \$25.00  
or offer.

GE AC Load Visualizer (Power Factor) to 600 V. @ 50 Amps like new  
\$35.00 or offer.

2 chain around bumper antenna mounts \$5.00 ea. or offer.

C. P. Clare 10 contact 3 banks stepping relay Mod. 36 with power supply  
indicator lights. \$15.00 or offer.

3 Potter-Bumfield KRP 14 A 3 pole double throw octal plug in 115V.ac  
Realys New \$3.00 each or offer.

5 Potter-Bumfield KRP 11 A 2 pole double throw octal plug in 115 VAC  
Relays New \$3.00 each or offer.

2 Frost Engineering Sensing relays ER 10-5 & EF 105P octal plug in  
115 VAC @ 5 Amps New \$3.00 each or offer.

Field Strength meter \$5.00 or offer

Q-Beam Acme movie lite new \$10.00 or offer. Contact Charles L.  
Carpenter K6HPP 786 Coleman Ave. Apt. K Menlo Park, Ca. 94025  
Telephone # 325-4845

NEW REPEATER DIRECTORY

The latest ARRL Repeater Directory is a 35 page 6x9 free booklet which  
users will find very handy particularly when you plan to travel. Send  
a large S.A.S.E. with 24 cents postage.

FIELD DAY 1972

Here is the listing of our neighbor clubs and some that we have dealings with, in the order they appeared in ST:

Call	Name	Xmts	Points
W6V T/6	Four H Minus One Club.	1	1886
W6LUC/6	Santa Barbara ARC	2	1708
W6PIY/6	West Valley ARA	2	1526
W6TO/6	Fresno ARA	2	539
K6FB/6	Hewlett-Packard ARA	3	2814
W6OTX/6	Palo Alto ARA	3	2264
W6HS/6	Crescenta Valley RC	3	1628
WB6QHL/6	"Worldradio" Staff ARA	3	1250
W6AK/6	Sacramento ARC	3	952
W6IF/6	Richmond ARC	4	4746
W6PW/6	San Francisco RC	4	2668
W6IAH/6	Westinghouse ARC	4	2086
WB6PCO/6	Fremont ARC	4	1882
W6JB/6	San Leandro ARC	4	1816
W6PMK/6	North Peninsula Electronic	4	1702
WA6TOW/6	Coastside ARC	4	1542
W6OT/6	Oakland RC	4	1212
K6DKX/6	San Carlos CD ARC	5	3862
WA6GFY/6	Lockheed FRA ARC	5	2464
W6JBT/6	Citrus Belt ARC	5	1989
K6BJ/6	Santa Clara County ARA	5	1746
W6SG/6	Marin ARC	5	1023
K6CE/6	Ampex Employees ARC	6	4782
W6MLK/6	Hi-Frequency Amateur Mobile	6	1352
W6CX/6	Mt. Diablo ARC	7	4012
K6IS/6	North Hills RC	7	1765

Join the Code Class - Get Your  
License - Go Up - Call Paul 369 4034  
Thursday Nites

ARRL OFFICIAL BULLETINS

#391 September 21

Attention DXers. Announcement is hereby made of the additions to the ARRL Countries List of Mellish Reef. Mellish Reef is territory belonging to Australia located at approximately 17 degrees 25 minutes south latitude and 155 degrees 52 minutes east longitude. This addition to the Countries List is made under Point 2 (a) of the criteria detailed on page 131 of the October issue of QST. Submissions for DXCC credits for Mellish may be made starting November 1. Confirmations received before November 1 will be returned without credit. With this addition, the last position in the Honor Roll will be 312 deleted. DXCC participants who can make the 312 deleted total may make submissions for Honor Roll credit during December.

#393 October 2

FCC has now acted in the matter of Docket 19162, regarding phone band expansion. Effective November 22, 1972, there will be 25 KHz more on 75 meters, a move down to 3775 KHz, and 50 more on 40 meters, down to 7150 KHz. There will be no expansion 20, 15, or 10 and no change in the 25 CW segments for extra. Voice sub-bands available exclusively to extras will be 3775-3800 and 21,250-21,270 KHz. Voice sub-bands available to advance and extra will be 3800-3890, 7150-7225, 14,200-14,275, 21,270-21,350 KHz and 50.0-50.1 MHz. Novices stay at 3700-3750, move to 7100-7150 and at 15 meters reduced to 21,100-21,200 KHz. They lose 145-147 MHz privileges entirely but will get CW privileges from 28.1-28.2 MHz. The novices requirement for crystal control is to be deleted. Full information will appear in the November issue of QST.

#394 October 12

FCC has issued a policy statement easing compliance with the repeater Docket #18803. All amateur applications filed on or after October 17, 1972, must comply with the new rules. A station operating as a repeater station, and/or one authorized for remote control, whose license

(cont. to Page 12)

(cont.. from Page 11)

was granted as a result of an application filed prior to October 17, 1972, should comply with the new rules to the extent possible after that date, but must fully comply by no later than June 30, 1973. Applications for such stations received prior to October 17, 1972, will only be granted authorization for operation through June 30, 1973. These station and any other atation whose license must be modified to comply with the new rules may file an application for modification for the balance of the original license term without payment of additional filing fees. If a renewal or additional privileges are requested, normal filing fees will be required. Applications for station license madification filed after April 30, 1973, may not be processed in time to permit continuity of operation. The granting of waiver requestes except under the most exigent circumstance are not contemplated. The report and order and the rules speak of limiting repeater station coverage to intra-community amateur radio communication. In consonance with the rules limiting to two the number of repeater station operating in tandem, intra-community is considered the maximum area covered by such a network. Beginning October 17, 1972, a license issued for a repeater station will authorize a call sign having the prefix WR followed by the number of the applicable FCC district. The suffix will be three letters assigned systematically starting with AAA.

#395 October 12

More from FCC. Effective December 1, Docket 19245, the so called Eyebank matter, has been concluded by amandment fo section 97.39 to remove the words quote nor for its use unquote. Third party traffic is prohibited if it involves material compensation, either tangible or intangible. Direct or indirect to a third party, a station licensee, a control operator, or any other person. A new rule forbids the use of amateur radio in connection with any illegal activity. December OST will carry the full text. FCC has also issued a new notice of proposed rule makeing concerning possible limited compensation for control operators at club stations and possible relaxation of the logging for third-party communications. Text in December OST.

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AND A BRIGHT  
AND HAPPY  
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STORE HOURS

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CURRENT EVENTS (CONT FROM Page 4)

BOARD MEETING November 18, 1972

The meeting was held at the club trailer, with Fred Canham presiding. Minutes of the previous board meeting were read and approved. The treasurer's report detailed income and amounts paid out during October and November.

Andy Korsak gave technical committee reports. A memo from Ed Fairbanks reported on the Auction refreshments, and details what will be referred to for the next auction.

It was decided that PAARA will join the CCRC for 1973 and the \$6.00 dues were approved; Fred Canham and Jerry Starkey will be delegates.

Jerry Starkey will act as Christams party chairman for PAARA and will work in close cooperation with Gene Sussli to formulate plans and arrangements. Les Vickery will assist.

Civil Defence plans for presenting to the City of Menlo Park were discussed at length. Further study and development will follow under the leadership of Bob Allen.

NEW MEMBERS DURING THE PAST MONTH

Howard M. Weidler W6WMC  
881 Embarcadero  
Palo Alto, Ca. 94303 323-1712

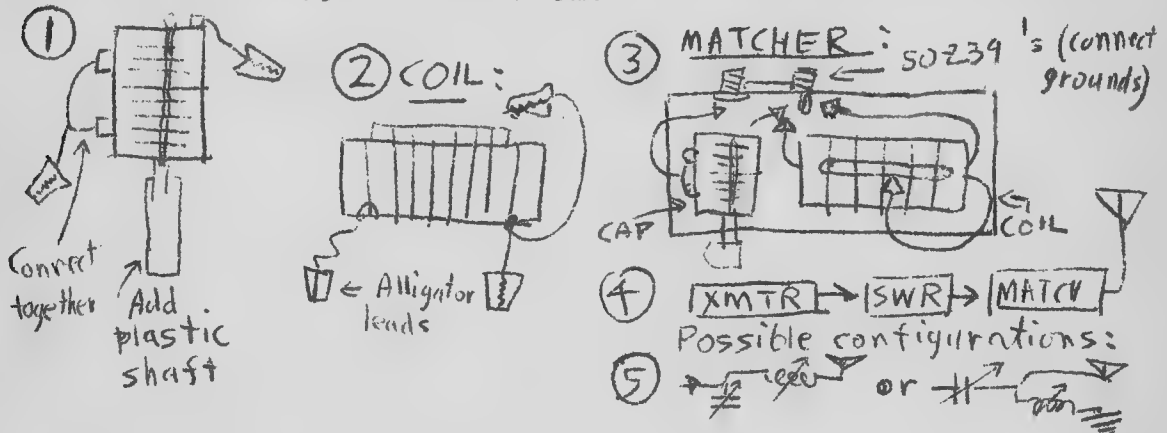
Charles E. Cary  
940 Arbor Road  
Menlo Park, Ca. 94025 323-6401

TECHNICAL TOPICSA SIMPLE ANTENNA MATCHER

By: RICHARD FERRANTI, WN6NCX

If you like to operate on all bands with a minimum of expense, have a decent junkbox, lots of wire, and a cardboard tube about 3 inches in diameter 8 inches in length, you might want to try this matcher. I've used it for over a year at my home station with a 40 meter dipole with 1:1 SWR and more recently at the station at the U. of Santa Clara, with WB6DOA operating 20 phone and 40 C.W., near 1:1 SWR, and contacts from Hawaii to Maine. The antenna there is just 135 feet of wire; we used about 180 watts.

Take an old broadcast-band variable capacitor, rip out the trimmers on the side, and connect the two sections together to obtain close to a 500-pf variable, good to 200 watts C.W. or P.E.P. S.S.B. Now wind some 14-16 gauge wire around the tube, pushing a pencil under the windings so a clip can connect to the stripped, raised portion as a tap. 20-25 turns is about enough for a coil. Just solder leads with alligator clips to the capacitor connections, and the ends of the coil, with one extra lead as a shorting clip at one end of the coil. You're essentially finished--glue or screw the coil and capacitor to a wood board and add SO-239s. Be sure to ground the coax going in and out of the matcher. 73 es Good Luck!



THE CLUB'S TWO-METER PROJECT  
de Andy VE3FZK/W6

FM RECEIVER BUILT BY JOHN ELLISON

As I mentioned previously, John Ellison, W6AOI, has been developing a new FM receiver design in his "garage workshop".

A few months back I asked John to help us come up with a suitable receiver for club members to be able to copy, as I was having trouble trying to come up with a design that worked consistently and was reproducible. John design phase went through the usual "ups and downs". He was having lack of gain in his second mixer (JFET), then when he raised the oscillator voltage dring it he too many strong birdies. Finally, he licked the problem by going to a dual-gate MOSFET second mixer stage just like his first mixer.

John is now drawing up a layout of his receiver and he has given me a complete circuit diagram and parts list. I hope to have John demonstrate it at the Dec. meeting, and if he can't make it I hope he may let me bring it for display. It works really well now, and when I went to John's place to examine the latest version, we tuned in a couple of repeaters very nicely off a 19 inch whip inside his garage. Sensitivity is under a microvolt, but I don't have the exact apecs on S/N and d6 quieting (and all that sort o f "rot"). Anyway, I think he's come up with a great idea in a receiver design, and the first chance I have I will build a copy of it, but laid out slightly longer and on a p.c. board, so the average ham would build it more easily. After all, John is not quite the "average ham - he's built an awful lot of good equipment. John is a retired Navy Captain, by the way, and some of you guys might have read articles by him in QST and possibly elsewhere.

Some advantages of Johns design"

1. Xtal controlled front end (1-st converter)

for stability

Page 17

2. Tunable 1st IF (at around 10 MHz) and tuning range so far is about 500 KHz (I will try to expand this in my prototype for the club).

3. All integrated circuits after 2nd mixer makes for easy building. He uses the RCA 3028 as an IF amp., the Motorola MC 3089 as limiter, FM detector and squelch, and another IC for all the audio gain and output power.

One feature I would like to add to Joh's design is some means of AM detection so the receiver could be used for rag-chewing and on nets like the CD drill and SPECS net Monday nights. After all, there still is a lot for us on 2 with AM rigs, and it would be a shame to have to miss all those long drawn out "put you to sleep" QSO's. There is a lot of "old timers" especially who get on 2 every night and I enjoy listening to them without a lot of QSB, QRM, and just being able to sit back and relax. In fact, I get into some of those drawn out QSO myself. That's the nice thing about the good old AM mode. On FM repeaters, you can't get to "pour your heart out". On some of them, if you say more than a few words you're not wanted, it seems. Not that I am down on FM repeaters--they are great for reliable mobile communications. But for our club purposes, we need AM for club nets and FM for CD activities. Les Vickery W6ARK built a nice 14 v and 18v regulated power supply using IC's good for this project.

#### FM TRANSMITTERS AVAILABLE

Now that I got my copy of the W6HDO tx design working, Bob Baum, W6BFH built one and has all stages up to 72 MH working (at latest news). Doc Laxon came over to my garage the other day and raided the club's parts kitty for building the FM "Pip-Squeak" out of QST. Vance Wardlow W6FLE bought % 100 Mw 2-meter Fm transmitter for \$35.00 and has some left for anyone wanting to get on the air with the repeater gang right away. These are finished transmitters complete with K6FO Xtal and mike.

18  
San Carlos Bulletin

We held elections for officers at our October meeting as required in our by-laws. On Thursday, Nov. 16, 72 we held the first meeting at which our newly elected officers took over the reigns. This is our line-up for the new fiscal year:

President: Bill Jackson, W6OWQ  
Vice-President: Gordon Spalding, KH6HFT/W6  
Treasurer: Bill Burris, WA6CXJ  
Secretary: Hank Luthe, W6NIZ

Congratulations to all new officers, and good luck.

This last meeting was a very lively one and we had a record turnout of about 24 members. The main items on the agenda were the Christmas party, participation at the Pacific Directors Meeting next month in San Jose and the announcement of the Field Day Results for 1972. Our San Carlos club did just as well as we expected. Again, we placed FIRST in the State of California And we moved up to THIRD place nationwide in the 5-transmitter class. If we continue this way, we could be first in the nation next year. Bill Jackson brought up the fact that we have some FM equipment from the county for CD purposes. We will have a meeting of RACES members on Thursday, Nov. 30, 72 at the Firestation #2 to install as many of these mobile units in our cars as possible.

We also held elections for two vacant seats on our Board of Directors. This is your new Board of Directors:

Bill Jackson, W6OWQ	Eugene Sussli, WA6NVU
Gordon Spalding, KH6HFT/W6	Fred Heward, K6EER
Bill Burris, WA6CXJ	Larry Reed, W6CTH

Secretary of the Board: Hank Luthe, W6NIZ

I hope San Carlos members will turn out in force as usual for our Christmas Party at which our new officers will be formally installed.

73,

Gene, WA6NVU



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*Greetings*



FOR THE HOLIDAYS

AND MAY EACH

DAY OF THE NEW YEAR

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- QUEMENTS -

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*Merry Christmas  
and a Happy New Year*

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